

REMARKS

Claims 1-20 are pending in the present Application. Claims 2, 10, and 11 have been canceled. Canceled claim 11 was identical and redundant to claim 3.

The Abstract has been amended to be less than 150 words.

No new matter has been introduced by these amendments.

I. The objections to claim 1

The repetitive language has been deleted in accordance with the Examiner's suggestion. Applicants respectfully thank the Examiner for noting this language.

II. The claim rejections under 35 U.S.C. § 112, second paragraph.

Claim 1 stands rejected under 35 U.S.C. § 112, second paragraph. Claim 1 has been amended accordingly to eliminate the term "broader."

III. The anticipation rejections of the independent claims (1, 9, and 17) in view of the Huang article or Landemeyer, 6,453,056.

Claims 1, 4, 6, 9, 12, 14, 17 and 18 stand rejected as anticipated by the Huang article entitled "Road Sign Interpretation Using Matching Pursuit Method." Also, Claims 1, 9, 12, 14, and 17-18 stand rejected in as anticipated by Landemeyer, 6,453, 056.

The independent claims have been amended as follows to include the limitations from claim 2 (see amended claims 1 and 17) or claim 10 (see amended claim 9), and are thus no longer anticipated by Huang or Landemeyer according to the reasoning of the Office Action as explained below.

Amended claim 1 includes the limitations from claim 2. Claim 2 is canceled herein. Claim 2 is not rejected as anticipated by Huang, thus amended claim 1 is not anticipated by Huang according to the reasoning of the Office Action.

Amended claim 9 includes the limitations from claim 10. Claim 10 is canceled herein. Claim 10 is not rejected as anticipated by Huang. Thus, amended claim 9 is not anticipated by Huang according to the reasoning of the Office Action.

Amended claim 17 includes the limitations from claim 2 in context. Claim 2 is

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canceled herein. Claim 2 is not rejected as anticipated by Huang.

Thus, the anticipation rejections of the claims based on Huang and Lindemeyer are respectfully traversed including the dependent claims.

IV. The obviousness rejections of claims 2 and 10 in view of the combination of Huang and Perez.

The limitations from Claims 2 and 10 have been amended into the independent claims 1, 17 and 10 respectively. Therefore, it is important to address the rejections of claims 2 and 10 to understand applicants' amendments and to understand the allowability of the claims.

Claims 2 and 10 claim the Fourier transform method of converting the input signal and also claim the methods of using non-linear filtering.

In rejecting claims 2 and 10, the USPTO cites a combination of the Huang article as teaching everything except the Fourier transform step (see page 9 of the Office Action). Thus, applicants' own article (Perez) is cited against applicants as disclosing the missing Fourier transform method not disclosed in Huang. Thus, the USPTO respectfully alleges that it would have been obvious to combine Huang and Perez to make claims 2 and 10 obvious.

However, the problem with this combination is that the two references are not technically compatible and the Huang reference "teaches away" from use of the presently claimed "non-linear" filter with a Fourier transform method in favor of a totally different "linear" MP filter method that uses projection methods based on basis functions which compare the angle between coefficient vectors and wavelet transforms as described at page 330 of Huang quoted below:

"With MP filters, one compares ***the coefficient vectors from two objects***, where the coefficient vectors are generated by the same set of bases. The similarity measure between two objects, where ***the coefficient vectors are generated by the same set of bases***. The similarity measure between two objects is the angle between their coefficient vectors. This measure is invariant under ***linear*** changes in the contrast of the image. Furthermore the basis is composed of ***wavelets*** then the similarity measure is also invariant to the illumination level in the image. (***emphasis added by applicants***)."

It is respectfully noted that this method has nothing to do with the presently claimed method

which uses Fourier transforms and *non-linear* filters wherein "filtering said transformed input using *nonlinear filtering*" is claimed.

Thus, there is no motivation to combine the linear system of Huang with the non-linear filter system of the Perez article, and thus there is no reasonable expectation of success as required for a *prima facie* case of obviousness for the combination (see MPEP 706.02(j)). This is especially apparent when it is considered that Perez is suggesting using Fourier theory (the frequency domain) and Huang is not.

Applicants also respectfully notes that none of the other cited references make up for the deficiencies in Huang.

For example, Landeneyer, 6,453,056, also "teaches away" from use of any Fourier transform methods at col. 13, lines 53-58:

"As noted above, the Fourier transform recognition techniques *suffer from a reliance on the frequency domain* where many background objects and non-objects exhibit sign-ness *as opposed to the spatial domain used beneficially herein ...*"

Thus, as the rejections of claims 2 and 10 have been traversed and the limitations from claims 2 or 10 have been incorporated into the independent claims, the independent claims are believed to be allowable. It respectfully follows that all of the dependent claims are therefore also allowable.

V. New claims have been added herein.

No new matter is added. See page 18, line 27.

VI. Conclusion

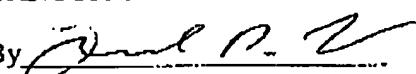
It is respectfully asserted that the foregoing amendments and remarks fully respond to the Office Action and that the claims herein should now be allowable. Accordingly, reconsideration and allowance are respectfully requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Please telephone the undersigned for any reason. Applicants respectfully endeavor to cooperate with the Examiner and to expedite prosecution.

Respectfully submitted,

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